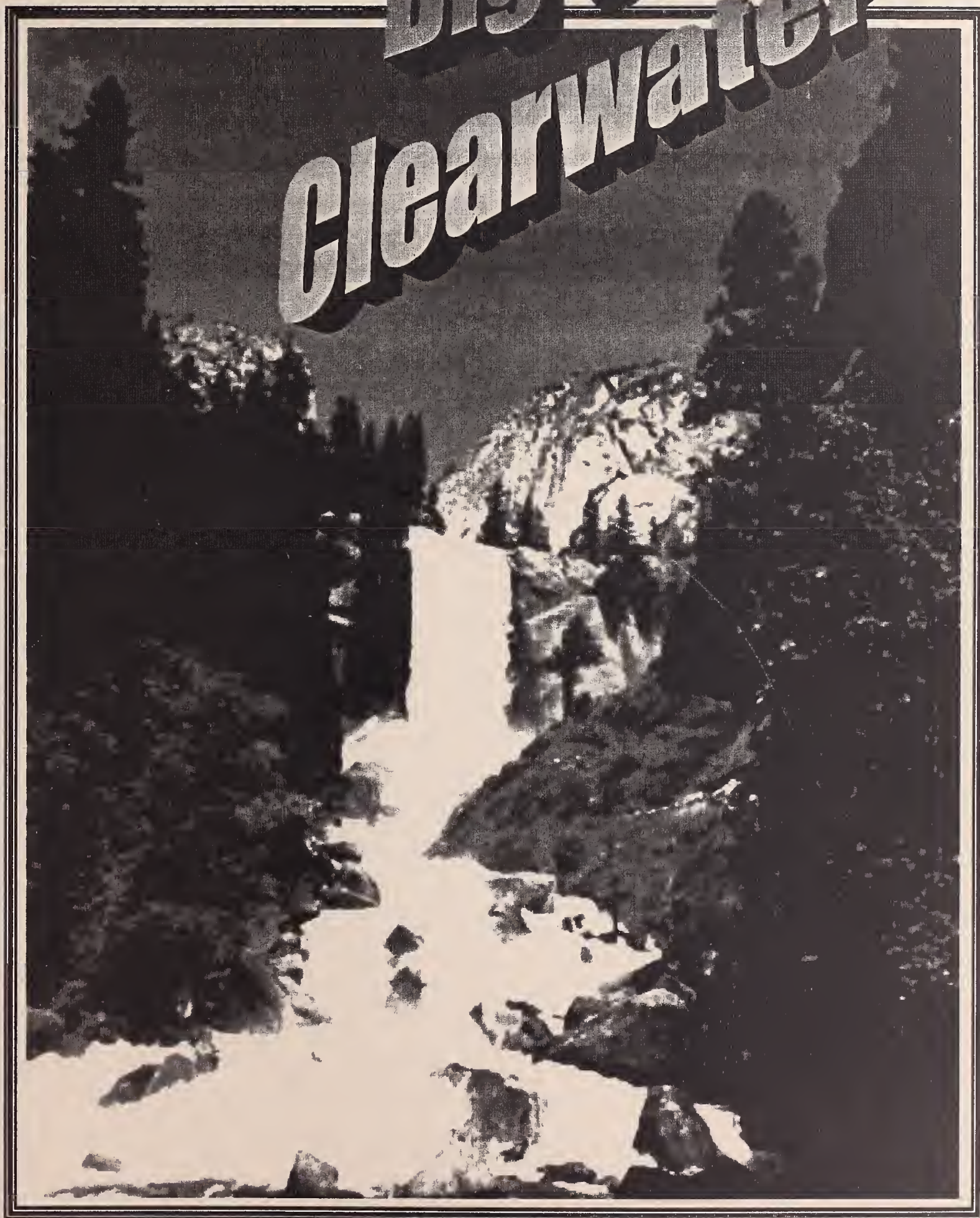


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Volume XXX, Issue 1



Montana Department of
ENVIRONMENTAL QUALITY

Big Sky Clearwater

Volume XXX, Issue 1

Spring 2000

The Big Sky Clearwater is a publication of the Department of Environmental Quality. The department welcomes articles of interest and suggestions for articles related to water quality, water and wastewater treatment and the water environment from the general public of Montana for inclusion in this publication. Please contact DEQ if you have information or ideas you would like to share with other professionals involved in the water and wastewater field.

Articles may consist of your thoughts or ideas about treatment plant experiences, technical papers or just about any information that you think may be of use to other operators or managers. The Clearwater Editor can be reached at:

(406) 444-5337 Bill Bahr or (406) 444-4769 Eric Minneti

I would like to take the time to thank some of the folks that have brought you this issue of the Clearwater. A lot of time and energy is put into this publication in hope of expanding all of your ideas and knowledge about the water/wastewater profession. Paula Tocci has spent considerable time adding graphics and helping edit the articles, Dan Rapkoch for his final editing review and to everyone that has sent in these articles to share with all of you. Thank You.

THE BIG SKY CLEARWATER IS FOR WATER AND WASTEWATER OPERATORS ACROSS MONTANA. IT IS PUBLISHED TWICE A YEAR BY THE PLANNING, PREVENTION AND ASSISTANCE AND PERMITTING AND COMPLIANCE DIVISIONS OF THE MONTANA DEPARTMENT OF ENVIRONMENTAL QUALITY IN COOPERATION WITH THE MONTANA WATER ENVIRONMENT ASSOCIATION AND THE MONTANA SECTION OF THE AMERICAN WATER WORKS ASSOCIATION.



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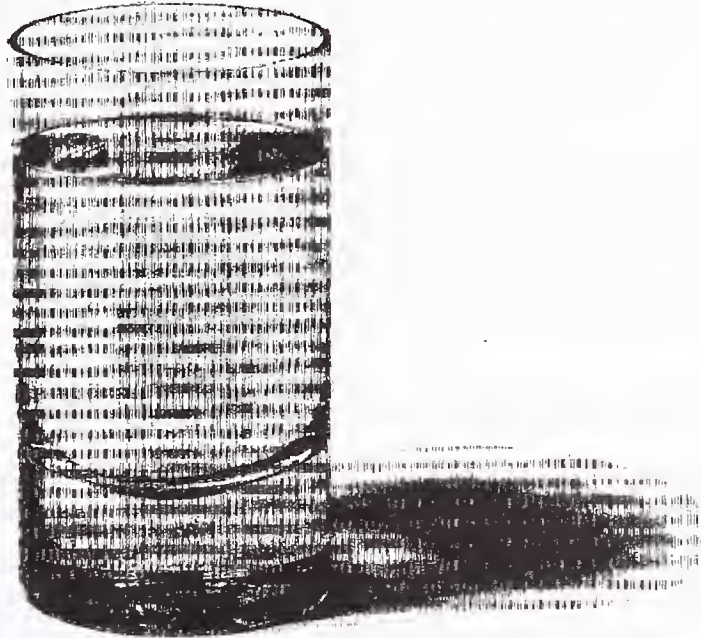
UPDATE ON THE CONSUMER CONFIDENCE REPORT

As most of you know the first annual Consumer Confidence Report (CCR) was due on October 19, 1999. For your information the Public Water Supply program has received 510 CCR's for the 620 systems that were required to do them as of 12/22/99. That is eighty-two percent compliance. The Department would like to thank all of the systems who made this great effort at complying with a new rule. There were quite a few training sessions on how and why to do a CCR last year and this year there will be several more (Check the training calendar for dates).

There were quite a few questions about what exactly had to be in the CCR and I would like to use this article to discuss some of those questions.

- **Do I have to list all of the detected contaminants in the report or just the ones that exceed the MCL?** All detected contaminants that you are required to sample for must be listed in the table. This includes turbidity, microbiological, radiological, inorganic, volatile organic and synthetic organic.
- **Do I have to include the date that the samples were taken in the table?** The rule does not require that the sample date be listed, but I would recommend that it be included to add clarity to the report data and it helps the person preparing the report determine if the result should be included.
- **What is the minimum detection limit for lead and copper?** Many people had test results that said "Lead <0.005", and wondered if this was reportable. If there is a question about how results are reported, your best bet is to call your lab and ask them what the results mean. Is it less than the detection limit? I would suggest that all systems get a copy of the Guidance Manual that EPA put out called "Preparing Your Drinking Water Consumer Confidence Report". The guidance is very informative and has an appendix with a list of minimum detection limits for most contaminants.
- **Can a system that buys water from another community water system just send out the CCR from the wholesale water system?** They can, but information about the monitoring done by the purchasing systems needs to be added to the CCR. Also there will be contact person data that will need to be changed. I would suggest that wholesalers and purchasers work out an agreement that is helpful to both as far as the CCR is concerned.
- **Does the Documentation Form have to be sent to the state along with the CCR report?** No, the rule states that the documentation form must be received by the primacy agency no later than 3 months after the due date of the report. The documentation form for this year's report was due by January 19, 2000 and for subsequent years it will be October 1. The Department would like to request that all systems send their Documentation Forms along with the CCR report. The reason for this is that it is a nightmare trying to match 620 reports with 620 documentation forms.

NOW IT COMES WITH A LIST OF INGREDIENTS.



What's in your tap water besides water? A short new report from your water supplier will tell you where your water comes from, what's in it, and how safe it is. Look for the report in your mail, and read it. Because when it comes to understanding your drinking water, the most important ingredient is you.



DRINKING WATER. KNOW WHAT'S IN IT FOR YOU.

Call your water supplier or the Safe Drinking Water Hotline at 1-800-426-4791.
Or visit www.epa.gov/safewater/

Surely there are many more questions about the particulars of this rule. Please feel free to call Greg Butts at 755-8985 or Eric Minneti at 444-4769 for assistance and plan to attend one of the training seminars. Someone will be talking about the Consumer Confidence Report Rule at these seminars:

1. Consumer Confidence Reports, Monitoring & Compliance (January 19 & 27, February 29, and May 23, 2000).
2. Small Water & Wastewater Systems Operation (April, May, & June).
3. MRWS Conference in Great Falls in February.
4. Spring Water School in Billings in March.

The due dates for the year 2000 CCR are different.

1. The CCR must be done and a copy sent to the State by July 1, 2000.
2. The report must be published, mailed out, or your customers noticed by July 1, 2000.
3. The Documentation Form must be received by the state by October 1, 2000.
4. Community water systems (CWS) that sell water wholesale to another CWS must provide CCR information to their purchasers by April 1, 2000.

BIG YEAR AT EPA FOR NEW AND PROPOSED REGULATIONS

It's been an extremely busy year for the U.S. Environmental Protection Agency (EPA) in the development and implementation of new drinking water regulations. Many of these will have a significant impact on Montana's public water supplies. It's been difficult for even the larger water systems to keep up with the changes and comment on the proposed regulations. At least now, with the availability of the Internet, the full text of the existing and proposed regulations can be easily accessed and printed on your home or shop computer. In fact, you can search for any particular regulation by going to the EPA web site at:

<http://www.epa.gov/epahome/search.html>.

SOME OF THE MOST SIGNIFICANT EVENTS WERE:

Consumer Confidence Reports (CCR)

The CCR is an annual report to customers on the quality of the drinking water delivered by the water system. All community water systems were required to issue a CCR by October 19, 1999. The Department of Environmental Quality has received quite a stack of CCR's, and is still wading through them to determine if all systems have complied. AWWA encouraged all systems to use the CCR as a vehicle to obtain positive support from their consumers. See <http://www.epa.gov/ogwdw000/ccr1.html>.

Radon

EPA is proposing new regulations to protect people from exposure to radon, the second leading cause of lung cancer in the United States. The proposal was signed on October 19, 1999. The proposed regulations will provide states flexibility in how to limit the public's exposure to radon by focusing their efforts on the greatest public health risks from radon—those in indoor air—while also reducing the risks from radon in drinking water. The rule will require all community systems to monitor quarterly for one year and the MCL is being proposed at 300 pCi/l. The comment period for the proposed radon rule was extended from January 3 to February 4, 2000. Complete information can be found at: <http://www.epa.gov/OGWDW/radon.html>.

Underground Injection Control Regulations for Class V Injection Wells

Revisions to this rule were issued on Dec 7, 1999. The rule bans new large capacity cesspool and motor vehicle waste disposal wells as of April 2000. Existing cesspools must be phased out by April 2005 and vehicle waste disposal wells must go by January 2007. More information is available at: www.epa.gov/safewater/uic/c5fin-fs.html.

Interim Enhanced Surface Water Treatment Rule And Disinfectants/Disinfection By-Product Rule

Every public water supply in Montana that disinfects or has a surface water source will be affected by one or both rules. Compliance with the rules will be complex and expensive. METC and Montana Section AWWA are offering seminars to explain these rules and their impact on

Montana systems. See article on page 4. Implementation guidance is provided at:
<http://www.epa.gov/ogwdw000/mdbp/swtrfr.html>.

Lead & Copper

Minor changes to this rule were finalized in December. More information is available at:
<http://www.epa.gov/ogwdw/standard/leadfs.html>.

Arsenic

The proposed arsenic rule is expected in March or April 2000 and the final is scheduled for January 2001. More information is available at: <http://www.epa.gov/OGWDW/ars/arsenic.html>.

Sulfate

EPA has been working with CDC to study the health effects of sulfates in drinking water. Sulfate is one of the 50 chemical and 10 microbiological contaminants/contaminant groups included on the Drinking Water Contaminant Candidate List. EPA must decide by August 2001 whether to regulate sulfates. More information is available at:
<http://www.epa.gov/safewater/sulfate.html>.

Ground Water Rule

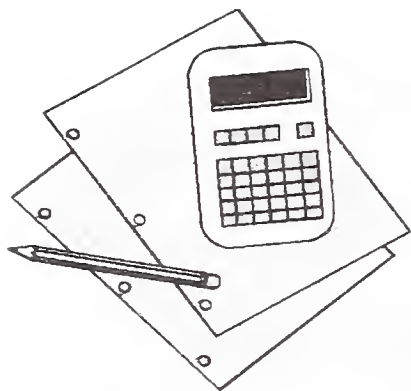
The Ground Water Rule is designed to protect against pathogenic bacteria and viruses in source water, against growth of opportunistic pathogenic bacteria in ground water distribution systems, and to mitigate against any failure in the engineered systems, such as cross-connections or sewage infiltration into distribution systems. EPA is working with stakeholders to develop a Ground Water Rule (GWR) proposal by April 2000 and a final rule by April 2001. More information is available at:
<http://www.epa.gov/ogwdw000/standard/gwr.html>.

Public Notification

EPA is proposing to revise the general public notification regulation for public water systems to implement new requirements enacted in the 1996 SDWA amendments. These amendments made significant changes to the public notification provisions to better target notices for serious violations posing a short-term risk to health and to make the existing notification process less burdensome and more effective. The final rule and handbook should be published within the next few months. A fact sheet is available at: <http://www.epa.gov/safewater/pws/pn/pnfact.html>.

ICR

EPA has collected data required by the Information Collection Rule (ICR) to support future regulation of microbial contaminants, disinfectants, and disinfection by-products. This data and other information about the ICR can be accessed at: <http://www.epa.gov/OGWDW/icr.html>.



CEC NAGGINGS

(THAT YOU MAYBE SHOULDN'T IGNORE)

By now each of you should have received the CEC (continuing education credits) status reports which were sent out in November. Remember these credits are due by June 30, 2000. This leaves only a few months to complete the requirements. There are several ways to obtain the needed CEC credits. You may attend an approved course (the METC calendar that came out in December contains courses for January through June), complete an approved correspondence course (these are also listed in the METC calendar), or apply for a course to be approved by our CEC approval committee. Operators-in-training are not required to earn CEC's.

Application forms were mailed to existing and interested ATPs (Approved Training Providers) on December 15th. Please note that these applications are due by April 1, 2000. Why not fill it out now and send it in before it slips your mind?

If there are any problems or updates needed on the CEC status reports, information on any of the credit options, or additional ATP application forms wanted, simply contact Ashley Finnegan, Water/Wastewater Operator Certification Office clerk at (406) 444-4584. We're here to help!



NEW

INTERNET COURSES

THAT EARN CEC'S



Montana's Newly Approved Internet Courses

- ❖ Wastewater Clarification, 6 hours, approved for water treatment (WD & WT) and wastewater treatment (WWN & WWI) operators
- ❖ Wastewater Clarification, 5-day, 8 hours, approved for water (WD & WT) and wastewater treatment (WWN & WWI) operators
- ❖ Wonderful World of Widgets, Pretreatment Permits Limitations Exercise, 7 hours, approved for wastewater treatment (WWN & WWI)
- ❖ Wastewater Clarifications, 6 hours, approved for all areas: water treatment (WD & WT) operators, wastewater treatment (WWN & WWI) operators

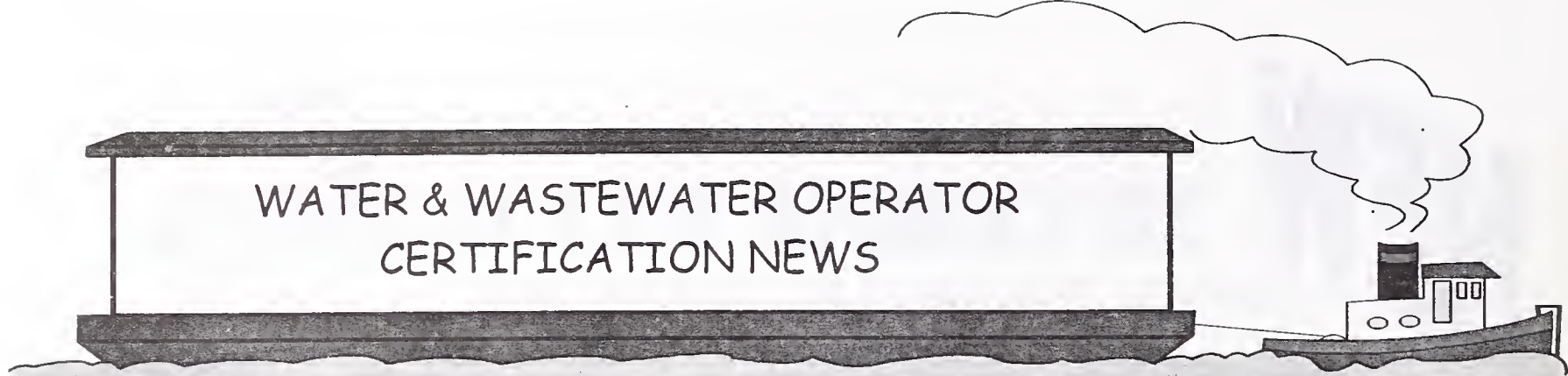
CHECK it out on the **WEB** at:

<http://www.environmental-training.com>

If you have any questions please contact Regina Meehan

Email address: rmeehan@environmental-training.com





by Shirley Quick, Certification Officer

Increase in Application and Examination Fees

The fees to apply for and take water and wastewater certification exams were increase on January 14, 2000. The one-time fee to apply for reciprocity for certification from another state will also increase on that date. **NOTE: Annual renewal fees for operators who are already certified were NOT increased.**

In other words, the fees associated with operator certification will be:

Application for water:	\$70
Application for wastewater:	\$70
Application for reciprocity:	\$70
Examination:	\$70
Renewal for water:	\$30
Renewal for wastewater:	\$30

For example, if you are already certified in water, your renewal fee that will be due on June 30 of every year will stay \$30. However, if you are not certified and will apply for certification as a water operator after the fees increase (let's say a Class 4AB) your application fee will be \$70 and your examination fee will be \$70 for a total due of \$140.

Why did the application and examination fees go up? As you know, Montana law requires that public water treatment systems, water distribution systems, and wastewater treatment systems are run by operators whose competency has been certified by the Department of Environmental Quality (DEQ).

Sections 37-42-304 and 37-1-134, Montana Code Annotated (MCA) require that the operator certification program take in sufficient funding from fees and federal funds to pay its expenses. The revenue from current fees charged is not high enough to cover these expenses, which resulted in a deficit in the state fiscal year that ended June 30, 1999.

The fact that this program is not making enough from fees has been a legislative audit exception for the last 5 years. The Montana legislative auditor has recommended that the DEQ raise fees so that, when combined with federal funding, they cover program expenses. Therefore, to be able to continue providing services to operators and systems, the DEQ must raise fees to accommodate the costs of providing these services.

In addition, there are now federal requirements that Montana have resources to pay for the operator certification program, and a federal recommendation that the program be self-sufficient. These fee increases are part of the DEQ's efforts to have the operator certification program become more self-sufficient to comply with state and federal requirements.

To develop the rule amendments, a subcommittee of the Water and Wastewater Operator Advisory Council (Council) was formed. The subcommittee consisted of representatives from the Council, the City of Billings, Montana Rural Water Systems, and DEQ administrative, program and financial staff. The subcommittee met to determine if the fees needed to be raised, and if so, which fees should be raised.

The reasons discussed by the subcommittee are as follows:

- The operator certification program does not have sufficient revenue from current fees to cover expenses. If fees are not raised, one full-time program position may need to be dropped, causing some of the following operator services to be discontinued:
 - Tracking of continuing education credits (CEC);

- Sending certified operators CEC status reports (operators would have to track their own training and send proof to the certification office that they have met their CEC requirements);
 - Charging for all study materials instead of sending them without additional charge when application and exam fees have been received; and
 - Offering exams for small system operators on numerous dates in addition to the normal semiannual testing dates. To reduce workload and costs if this proposed fee increase was not approved, fewer of these additional examination dates would be offered.
-
- The entire cost of processing applications, administering exams, and processing certifications is well over the old charge of \$50. Based on a cost study done in January 1994, the cost was approximately \$367, which is still considerably more than the new total application and exam fees of \$140.
 - Printing and postage expenses have increased because the program is now providing more study information to applicants and is responding to more requests for information.
 - It is also necessary to increase reciprocity fees because more time is spent by the program manager to determine whether operators' certifications from other states are equivalent to the requirements for certification in Montana.

Based on the reasons stated above, the subcommittee considered and discussed the need to raise fees and it was determined that there was a justifiable need. Three proposals were developed by the certification office. They were presented to the subcommittee and the entire Council at their meeting in September 1999. The proposal that only raised the application, examination and reciprocity fees had the backing of the members of the subcommittee and the Council. This proposal would pass the increase onto exam applicants, which is where the greater expense is incurred.

On November 19, 1999, all certified operators and other interested parties were mailed a copy of the Notice of Public Hearing on Proposed Amendment along with their updated CEC status reports. This Notice informed the recipients that a rule hearing was

to be held on December 14, 1999 in Helena to take comments on the proposed rule amendments, which included raising application, examination and reciprocity fees. No commentors attended the hearing in Helena on that date. The deadline to receive written comments on these changes was December 17, 1999. The three written comments that were received opposed increasing renewal fees. Since the renewal fees are not being raised at this time, the rule amendments were approved and went into effect on January 14, 2000.

The following are the other rule amendments that were approved:

- Clarifying the Administrative Rules of Montana (ARM) 17.40.203(10) by stating that certificates are effective for a year running from July of one year to June 30 of the next (the state's fiscal year), and that they may be renewed annually.
- Changing the word "must" to "shall" in ARM 17.40.212(1) to reflect current rule drafting style.

Again, remember that the renewal fees for certified operators did not go up (and haven't gone up for 7 years.) If you have any questions, call me at 406/444-2691.

Advisory Council changes

Mike Holzwarth notified us on December 1, 1999, that he has changed jobs and is now working in the environmental division of the new PP&L power company in Colstrip. Mike resigned his position on the Governor's Water and Wastewater Operators' Advisory Council since he no longer meets the requirements to hold the Class 1C wastewater treatment plant operator position. **Congratulations on your new job, Mike!** Thank you for the last 10 years on the Council as well as your much appreciated support to the certification office. We'll miss you!

On December 22, 1999, the Governor's office appointed **Roger Thomas**, City of Billings wastewater maintenance supervisor, to fill the remainder of Mike's term on the Council. **Welcome, Roger!**

The certification office is delighted to report that **Carol Reifschneider, Ph.D.**, was appointed to a six-year term on the Council. Carol is an assistant professor at MSU-Northern in Havre. **Congratulations, Carol!**



**INTRODUCING
THE NEW WATER AND WASTEWATER
OPERATOR CERTIFICATION STAFF MEMBERS!**

We are happy to announce that we have hired two new employees at the Operator Certification program to replace Tom Sanburg and Tausha Smith.

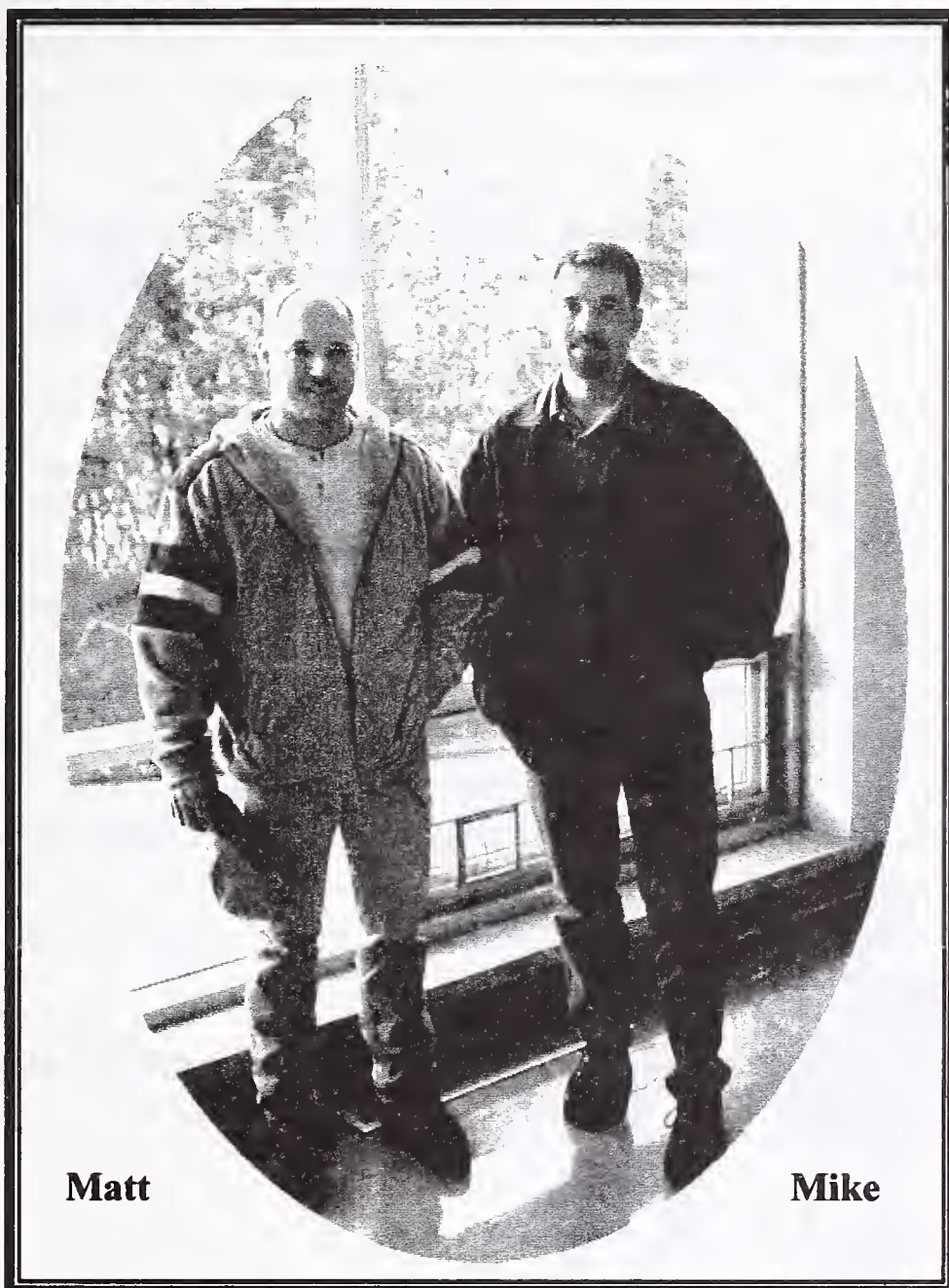
Reta Therriault (Left) started September 27, 1999 as our new Certification Technician. Reta comes to the certification office from the DEQ Environmental Management Bureau where she worked for eight months. Reta has excellent previous experience in coordinating large projects for the Valdez, Alaska Chamber of Commerce and dealing with the public as a dispatcher for the City of Townsend Sheriff's Department. Reta's responsibilities as the certification technician include managing the exam and renewal process, and answering certification questions. You can reach Reta at 406/444-3434.

Ashley Finnegan (Right) started as our new Certification Clerk on November 1, 1999. Ashley has worked for the DEQ as a high school intern and temporary for over two years. She has excellent computer and clerical skills, and loves to do data entry! Ashley can help you with your continuing education credit training and status questions. You can reach Ashley at 406/444-4584.

NEW STAFF MEMBERS IN THE PUBLIC WATER SUPPLY SECTION

The Community Services Bureau - Public Water Supply Section of the Department of Environmental Quality has added two new Water Quality Specialists to the program. It has taken six months to bring the new employees into the program. These individuals will be glad to assist you in any way they can.

Mike Kropp (right) started December 11, 1999 and is working in the Field Services program in the Kalispell Regional Office. He has a



Matt

Mike

Bachelor Degree from the University of North Dakota in Industrial Engineering. He has worked for several consulting companies in Montana. For the past three years Mike has been the water and wastewater operator for the Wilderness Plateau Water Users Association. Mike will be working with Greg Butts in the Kalispell office and assisting with technical assistance for water systems, sanitary surveys, training, and assisting with health advisors and boil water orders. Mike enjoys hunting, fishing, artwork, and spending time with his family. Mike can be reached at 755-8985.

Matthew Usuriello (left) started December 27, 1999 and is working in the Billings Regional Office. Matt has an Associate of Science Degree in Water Quality from MSU-Northern. He has worked for the City of Great Falls at the water treatment plant for the past 16 months. Matt will be working with Jerry Burns in the Billings office and assisting with technical assistance for water systems, sanitary surveys, training, and assisting with health advisors and boil water orders. Matt enjoys hunting, fishing, and outdoor activities. Matt can be reached at 247-4455.

TRAINING, ADULTS, AND LEARNING

By Jan Boyle
METC Training Coordinator

The term “training” often conjures up perceptions that relate to sit-down sessions in which participants are given information about some topic while remaining unengaged in the process. While this not necessarily negative, it is perhaps a misconception of training that is really all about adult education.

Adult learners have distinctive characteristics:

They learn best in an informal environment.

Research in adult education has shown that many adults have an unpleasant association between learning and memories of school days. These school experiences often involved the pressures of grades, assigned seats, strict rules, and teacher-centered activities. These sometimes negative experiences can often interfere with becoming more engaged in their own learning process. Thus an informal arrangement of the training classroom with some available “comfort” encouragements (hot tea or coffee, pastries, fruit) will bring about an environment more suited to adult learning.

They learn best through a variety of applied instructional modes.

Training is often associated with the application of listening skills by the learner. However, most adult learning really takes place through the sense of sight, and even more through active involvement. For example:

- 10% of what adults **read** is retained.
- 20% of what adults **hear** is retained.
- 30% of what adults **see** is retained; what they **see and hear** provides a 50% retention rate.
- 90% of what adults **see and do** provides the best advantage for retaining information.

They learn by doing

The moral of the adult learning story is that when adults **participate** in their own learning through various means they become more effective adult learners. The trial and error process in which many of us engage is an example of learning by doing.

They learn through the application of past experiences.

Adults have a wealth of experience that can be a valuable resource for others when shared in a conducive training environment. They learn best when they can transfer prior knowledge to a new learning activity.

The challenge for trainers of adults is to facilitate activities in which presentation approaches assist the learner in realizing the logical conclusions of past experiences leading to new ways of doing things. This may prove to be challenging when information delivered is centered on a completely different way of doing something. The trainer may face resistance, or the learner may listen, but revert to old ways.

Utilizing training strategies that encourage adult learners to participate and question will assist in integration of new information with past experiences (for both the learner and instructor). Certainly this can be a formidable task for trainers, especially if training tasks are just a small part of their responsibilities, and they are tasked to deliver specific information. It does take some preparation and risk-taking in training activities to “test the waters,” so-to-speak. As Susan McMaster, Training Specialist, has often pointed out in several METC Trainer Development courses, “Instructors are adult learners, too.” Literally taking that to heart can perhaps not only inform the trainer on how to instruct but how to learn from those adults learners, respecting their wealth of experiences.



MODIFICATIONS TO THE WATER QUALITY ACT

Well Drilling

By Eric Regensberger

The 1999 state legislature passed Senate Bill 499 which modified the Water Quality Act (75-5, MCA), the modifications were effective on May 10, 1999. A few of the changes adopted will affect the proper procedures that must be followed when drilling wells. This applies to all types of water wells (production, test, and monitoring wells).

Section 75-5-317, MCA of the Water Quality Act deals with activities that are considered “nonsignificant” with respect to degradation of water quality. Two subsections address well drilling practices [subsections (2)(f) and (2)(j)], both subsections, were modified as listed below. The modifications are underlined:

- (f) the use of drilling fluids, sealants, additives, disinfectants, and rehabilitation chemicals in water well or monitoring well drilling, development, or abandonment, if used according to department-approved water quality protection practices and if no discharge to surface water will occur;*
- (j) discharges of water to ground water from water well or monitoring well tests, hydrostatic pressure and leakage tests, or wastewater from the disinfection or flushing of water mains and storage reservoirs, conducted in accordance with department-approved water quality protection practices;*

These subsections are termed categorical exemptions to the nondegradation requirements of the Water Quality Act. If they are complied with, the drilling contractor (or owner) is not required to obtain additional nondegradation approvals or discharge permits from the DEQ to perform the operations listed.

What does all of this really mean? The changes mean that during normal drilling and testing operations on water, test and monitoring wells, fluids may not be discharged directly to any type of surface water (river, pond, lake, irrigation ditch, stream, etc.) without a Montana Pollutant Discharge Elimination System (MPDES) permit from the DEQ. A direct discharge may be via a pipe, dug out culvert, overland flow, or other means. The fluid must seep below ground surface before it drains to any surface water to meet the above exemptions. Of course some common sense applies to this last sentence. If, for example, drilling fluid is allowed to seep into the shallow ground water from a pit that is only a few feet from a river, the probable hydrologic connection between the ground water and surface water would likely constitute a direct discharge to the surface water.

If you will be conducting work that will require a direct discharge to surface water, please contact the DEQ permitting section (444-3080) for further information regarding the applicable regulations.



**WARREN JONES, PH.D. RECEIVING SERVICE AWARD FROM
SHIRLEY QUICK, DEQ CERTIFICATION OFFICER**

At the fall 1999 water school, Shirley Quick, DEQ certification officer, presented a service award to Dr. Warren Jones to thank him for his hard work on the Water and Wastewater Operators' Advisory Council.

Warren is an assistant professor in the civil engineering department at Montana State University in Bozeman. He served on the Council as the member who serves on the faculty of a university whose major field is related to civil engineering.

Warren served on the Council from November of 1993 until September of 1997. During his term on the Council, he played a major role in the revision of the new water study materials and exams, as well as the new formula sheet. Unfortunately, because of other commitments, he could not complete his term on the Council. But he is still keeping us honest in his role as director of the annual fall water school.

Thanks again, Warren. Better late than never!

OPERATOR EXAMINATION NOTIFICATION

DEPARTMENT OF ENVIRONMENTAL QUALITY
PERMITTING & COMPLIANCE DIVISION
WATER & WASTEWATER OPERATOR CERTIFICATION

METCALF BUILDING, 1520 E SIXTH AVE
PO BOX 200901, HELENA MT 59620-0901
406/444-3434 – FAX: 406/444-1374

(Please print)

OPERATOR NAME: _____ OPERATOR #: _____

NAME OF SYSTEM OPERATED: _____ PWS#: _____

MAILING ADDRESS: _____

CITY: _____ ZIP CODE: _____ DAYTIME PHONE #: _____

CLASSIFICATION OF EXAM REGISTERING FOR: Class _____ Type _____

To register for one of the examinations on this form, you must send the following to the above address by the registration deadline date:

1. a completed application for certification as a water operator;
2. the application fees;
3. the examination fees; and
4. a completed copy of this form and the fees for each examination.

TRAINING AND EXAMINATIONS FOR OPERATORS:

[Objects of revenue: exam 5002 (\$30)**, water app (A&B) 5005 (\$30)**]

****Application & examination fees will be increasing. Please check with certification office before sending in fees**

OPERATOR CERTIFICATION TRAINING AND DEQ EXAMINATIONS					
NOTE: You must also contact the training provider to register for this training (additional fees may be charged)					
Training Provider	Location	Training Date	Exam Date	Exam Registration Deadline	SIGN ME UP FOR THIS EXAM (✓check the exam date and site below)
Montana Rural Water Systems (MRWS)*	Great Falls	01/11-12/00	01/13/00	12/29/99	
MRWS 21 ST Annual "Millennium" * Technical Conference & Exhibition	Great Falls	02/23-24/00	02/25/00	02/10/99	
MRWS Annual Operator Certification & Math Review	Kalispell	03/08-10/00	03/11/00	02/25/00	
METC / DEQ Spring Water School	Missoula	03/08-10/00	03/11/00	02/25/00	
Montana Association of Water & Sewer Systems Annual Conference (MAWSS)*	Missoula	04/14-15/00	04/15/00	03/31/99	
4 th Annual Small Water/Wastewater Summer Certification School*	Kalispell	06/20-21/00	06/22/00	06/07/00	
METC/DEQ/MSU 67th Annual Fall Water School	Bozeman	09/25-28/00	09/29/00	09/14/99	

*Only Class 4 and 5 water or Class 3 and 4 wastewater exams will be given

DEQ SPRING MATH REVIEW AND EXAMINATIONS Math reviews are provided free of charge to all registered applicants				
Examination Location	Math Review Date	Exam Date	Exam Registration Deadline	SIGN ME UP FOR THIS EXAM (✓check the exam date and site below)
Billings	03/10/00	03/11/00	02/25/00	
Great Falls	03/10/00	03/11/00	02/25/00	
Havre	03/10/00	03/11/00	02/25/00	
Helena	03/10/00	03/11/00	02/25/00	
Miles City	03/10/00	03/11/00	02/25/00	
Missoula	03/10/00	03/11/00	02/25/00	

TRAINING SESSION SURVEY If possible, please have training in the following city or town:			
Location of system operated	Number of operators we will send to training	Closest municipality we could travel to	Please send me information about future training

TRAINERS TELEPHONE NUMBERS:

Montana Rural Water Systems (MRWS): (406) 454-1151
Montana Environmental Training Center (METC): (406) 771-4433
Montana Association of Water & Sewer Systems (MAWSS): (406) 273-3336



PERMITTING & COMPLIANCE DIVISION

CERTIFICATION EXAMINATION NOTICE

SATURDAY -- MARCH 11, 2000: Registration 8:00 a.m.

Examination 8:30 a.m. – 12:30 p.m.

BILLINGS	Holiday Inn; 5500 Midland Road; Aspen room
GREAT FALLS	College of Technology; 2100 16 th Ave South; Heritage Hall
HAVRE	MSU-Northern; 300 11 th Street West; room 113
HELENA	Cogswell Building; 1400 Broadway; room C209 (use south entrance)
KALISPELL	Kalispell Wastewater Treatment Plant; 2001 Airport Rd, Gate #4; conference room
MILES CITY	Miles Community College; 2715 Dickinson; room 106 (main building)
MISSOULA	Mountain Water Co.; 1345 Broadway; conference room

NOTE, THERE WILL BE NO EXCEPTIONS TO THIS:

By FEBRUARY 25, 2000, as required by ARM 17.40.208, everyone taking examinations must have:

1. Completed an application for certification as a water/wastewater operator;
2. Paid application (or renewal) fees for fiscal year 2000 which ends 6/30/2000; and
3. Submitted examination registration slips and fees of \$20.00* per examination.
(Combination examinations 2A3B, 3A4B, 4AB and 5AB require \$20.00* examination fee only.)

APPLICATION FEES ARE:

\$30* for water (including either or both water distribution or water treatment)

\$30* for wastewater

* Application & examination fees will be increasing. Please check with certification office before sending in fees.

To request application materials or to ask for additional information, call the certification office at 444-3434 for Reta Therriault, 444-4584 for Ashley Finnegan or write to:

Department of Environmental Quality
Water/Wastewater Operator Certification
PO Box 200901 – Helena MT 59620-9001

PLEASE KEEP THE UPPER PORTION OF THIS NOTICE



EXAMINATION REGISTRATION SLIP

(To register for an exam, detach and return this slip with appropriate fees by February 25, 2000)

The box marked below is where I will take the examination(s):

☐ Billings ☐ Great Falls ☐ Havre ☐ Helena ☐ Kalispell ☐ Miles City ☐ Missoula

	1	2	3	4	5
A - Water Distribution	_____	_____	_____	_____	_____
B - Water Plant	_____	_____	_____	_____	_____
C - Wastewater Plant	_____	_____	_____	_____	_____

DON'T FORGET!

Fall Water & Wastewater Exams
September 29, 2000
MSU-Strand Union Building, Bozeman

To receive application information, call Reta Therriault at (406) 444-3434
Or return the bottom of this page to:

Department of Environmental Quality
Water and Wastewater Operator Certification
PO Box 200901
Helena MT 59620-0901

✂.....

Water & Wastewater Operator Certification

Please send me an application package for the following exam:

	1	2	3	4	5
A – Water Distribution	___	___	___	___	___
B – Water Treatment	___	___	___	___	___
C – Wastewater Treatment	___	___	___	___	___

Name: _____ Operator #: _____

System Name: _____

Mailing Address: _____

City/State/Zip: _____

MATH REVIEW FOR CERTIFICATION EXAM

Sponsored By

Water & Wastewater Operator Certification Program

Friday March 10, 2000

6:00 p.m. – 9:30 p.m.

GREAT FALLS

College of Technology
2100 16th Avenue South
Heritage Hall

HAVRE

MSU – Northern
300 11th Street West
Room 113

HELENA

Cogswell Building
1400 Broadway
Room C209 (use south entrance)

MILES CITY

Miles Community College
2715 Dickinson
Room 106 (main building)

MISSOULA

Mountain Water Co.
1345 Broadway
Conference room



BILLINGS *

Holiday Inn
5500 Midland Road
Aspen room
1:30 p.m. to 4:30 p.m.

KALISPELL **

Kalispell Wastewater Treatment
Plant
2001 Airport Rd, Gate #4
Conference room
6:30 p.m. to 10:00 p.m.

These sessions are intended to review basic math for those people with valid applications for the exam being given on Saturday, March 10, 2000. Water school is not designed to teach you all you need to know to pass the exam OR to be a competent operator. You must invest self-study time before attending the school.

Since these sessions are designed for entry level operators, no CEC's will be given for any of these sessions, either for the Friday evening sessions or the ones available through MRWS and the Billings water school.

*BILLINGS – At the March 2000 water school in Billings, March 8th through March 10th, there will be sessions available each day to answer questions you may have from your self study, and to give you an overview of information. Contact the certification office at 406/444-3434 or the Montana Environmental Training Center at 406/771-4433 for more information on the spring water school in Billings.

**KALISPELL – The sessions in Kalispell will be held from March 8th through March 10th and are taught and sponsored by Montana Rural Water Systems. For more information, contact their office at 406/454-1151.

**APPLICANTS PASSING EXAMINATIONS
FOR FULL CERTIFICATION OR OPERATOR IN
TRAINING (OT)
1999 SUMMER AND FALL WATER SCHOOLS**

<u>NAME</u>	<u>CITY</u>	<u>CLASS 1'S</u>
AMICUCCI, Gail B	Whitehall	1C
BELL, Steve	Great Falls	1B OT
BUDESKI, William	Great Falls	1A
COBURN, James A	Billings	1D
DEAN, James	Billings	1D
FLADLAND, Jason	Helena	1A OT
HUSCHLE, Mike	Bozeman	1A
JUDGE, Mike	Great Falls	1A
LOFF, Lon	Billings	1A
MORITZ, Douglas	Conrad	1A OT, 1B OT
MOSBRUCKER, Steve	Hamilton	1C OT
MURRAY, Vincent R	Hardin	1B OT
PRICE, John E	Three Forks	1C
RASMUSSEN, Rick	Bozeman	1A OT
RUGG, Korey	Missoula	1C OT
SCOTT, Dennis K	Glacier	1B OT
WEATTER, Michael D	Chinook	1B OT
WEGMANN, Richard F	Glendive	1D
WILLIAMS, Lawrence	Ft Smith	1B OT
WILSON, David J	Miles City	1C OT

<u>NAME</u>	<u>CITY</u>	<u>CLASS 2'S</u>
ANDERSON, Christopher	Polson	2C OT
BEAUBIEN, Thomas N	Bigfork	2B
BLOMQUIST, Mark S	Gardiner	2C
CYPHER, Daniel A	Dillon	2A3B OT
LOGSDON, Grace E	St Mary	2C
MANN, Ralph E	Wolf Point	2A3B OT
RICHARD, Joseph W	Eureka	2B OT

<u>NAME</u>	<u>CITY</u>	<u>CLASS 3'S</u>
BARAJAS, Mark J	Big Sky	3C OT
CASTILLO, Ray E	Polson	3C
COUNTRYMAN, Dennis	Troy	3C OT
CYPHER, Daniel A	Dillon	3C OT
DEAN, Adam D	Circle	3A4B OT
DUFFEY, John	Ronan	3A4B OT
DuMONTIER, Kenneth	Dixon	3A4B
EHRY, Lawrence C	Deer Lodge	3C
FOGARTY, Bill	W Yellowstone	3C OT
FREY, Raymond A	St Ignatius	3C
FROSLIE, David C	Kevin	3C OT
HARNETT, Jonathan O	Thompson Falls	3C OT
KEEVER, Douglas E	Glendale	3A4B OT
KLEINSASSER, John D	Chester	3A
MORTON, Scott A	St Ignatius	3C OT
RICE, Jim	East Helena	3A4B OT
SCOTT, Dennis K	East Glacier	3A
VAILE, Theresa D	Babb	3A OT
VINION, Patrick	Libby	3A4B OT
WILLIAMS, Michael T	Broadus	3A4B OT

<u>NAME</u>	<u>CITY</u>	<u>CLASS 4'S</u>
BASSETT, Thad H	Melstone	4A
CUMMINGS, John B	Bozeman	4AB OT
EICHENLAUB, Darren	Clinton	4AB
FULTON, Violet R	Great Falls	4AB OT
HUNT, John W	Dodson	4AB, 4C
JOHNSON, Daniel G	Ryegate	4AB
NEESON, Richard	Decker	4AB, 4C
PORTRA, Doug	Froid	4AB OT, 4C
SUKO, Gerald	Billings	4AB OT
TURNER, Peggy B	Kalispell	4AB OT
WALDNER, George C	Columbia Falls	4C
WILLIAMS, Michael T	Broadus	4C
WIRTZ, LaVerle F	Outlook	4AB OT

<u>NAME</u>	<u>CITY</u>	<u>CLASS 5'S</u>
BOE, Brenda M	Lavina	5AB
CHALLONER, Wayne F	Wisdom	5AB
COWAN, Tom	Kalispell	5AB
DUFFALO, Betty Lou	Lolo	5AB
KILE, Edwin E	Columbia Falls	5AB
NICHOLS, Teddi	Columbia Falls	5AB
MACKLEY, Kirk L	Billings	5AB
PRICE, John E	Three Forks	5AB
POWELL, Melvin	Kalispell	5AB
RALLS, Hattie E	Hamilton	5AB
REES, Ronnie	Manhattan	5AB

KEY

A = Water distribution Operator
 B = Water System Operator
 AB = Well Water System Operator
 C = Wastewater System Operator
 D = Industrial Wastewater System Operator
 OT = Operator-in-Training



CONGRATULATIONS! Hats off to all of the operators who passed their examination in 1999. The exams for certification require considerable time in study and preparation. Passing represents a lot of hard work and initiative on the part of the individual. Be sure to show your appreciation to your water and wastewater operator for working hard to ensure that they are properly trained to care for your system!

MONTANA INFRASTRUCTURE FINANCING PROGRAMS APPLICATION WORKSHOPS COMING

February. 29 - Kalispell

March 2 - Helena

March 7 - Billings

March 9 - Glasgow

This workshop is for communities planning to construct a public infrastructure project within the next few years. The workshop will provide detailed information about how to complete the common application form that can be submitted to any of the public infrastructure funding programs. It will also address what is required in the preliminary engineering report along with other information common to each of the programs. Because these projects require legislative approval, the Treasure State Endowment Program (TSEP) and Renewable Resource Grant and Loan Program (RRGL) programs only accept applications once every two years. Applications are due this May for the next round of funding. Therefore, it is vital that any communities that will be applying to these programs attend the full day workshop. No fee or registration is required. For further information, call 406-444-2400.



TASTE AND ODOR SATELLITE TELECONFERENCE SCHEDULED FOR MARCH 9, 2000

Arrangements are almost complete for the next AWWA Teleconference entitled "Taste and Odor in Drinking Water: Operational Tools and Techniques for Identification and Control." This program will present practical methods utility operators can use to control taste and odor problems.

MSAWWA will again offer the teleconference in six locations: Billings, Bozeman, Havre, Butte, Helena and Missoula on March 9, 2000 from 9:30 am-1:30 p.m. The cost for members is \$55 on or before March 1, 2000 and increases to \$65 after March 1, 2000.

You've probably already received a mailing from AWWA—MSAWWA's flyer will arrive in February 2000. For further information, contact Scott Murphy at 406/442-3050.

ANNUAL CONFERENCE COMING IN APRIL

Mark those calendars—the MSAWWA/MWEA Joint Annual Conference is scheduled for April 19-21, 2000 at the Cavanaugh's Colonial Hotel in Helena. This year's conference theme is *Water Issues in the New Millennium—Meeting New Challenges Together*.

More information and registration forms will be mailed early in February. In the meantime, you can make room reservations at Cavanaugh's by calling 406-443-2100.

The rate for single or double occupancy is \$79, with king executive rooms available for \$99. A few rooms are available at the state rate of \$35 (id required). Reservations must be made by April 4.

Special plans for the conference include celebrating MSAWWA's 75th anniversary with special historic displays. To help commemorate the occasion, AWWA's Executive Director, Jack Hoffbuhner will attend.

WWTPS AND THE SAFE DRINKING WATER ACT

By Joe Meek, MT DEQ

Does it concern you when someone makes inquiries about your sewage collection and treatment system?

Do you get really concerned when the inquiry is driven by some obscure reference to a federal law or program that you just don't know much about?

Read on to learn a little more about a state program that might cause people to ask questions about your wastewater collection and treatment system!

The 1996 amendments to the federal safe drinking water act (SDWA) require states to develop a Source Water Delineation and Assessment Program. This program applies to public water systems (PWS). For starters, you should know that a public water system is **any** water system that serves 25 or more persons for at least 60 days in a calendar year. The big cities and towns all have PWSs but there are others that we don't always think about as "public" systems. They are often not even publicly owned but they serve the public. They include cafes, gas and convenience stores, campgrounds, and motels just to name a few. In Montana there are about 1,900 PWSs. The premise of the state program is simple; identify where the water used by the PWS is coming from, identify **potential** contaminant sources within that area, and then assess the susceptibility of the PWS to those potential contaminant sources.

If you are a WWTP operator you've probably know about infiltration and exfiltration as it relates to your collection system or ponds. If ground water ever enters your collection lines or if your lines leak or seep, then you probably know there may be some connection between your system and the ground water. If you think about it a little more, it should be apparent to you that your sewage collection, treatment, or discharge facility might be considered to be one of many potential contaminant sources for any nearby public water system. The key is understanding the term "potential contaminant source".

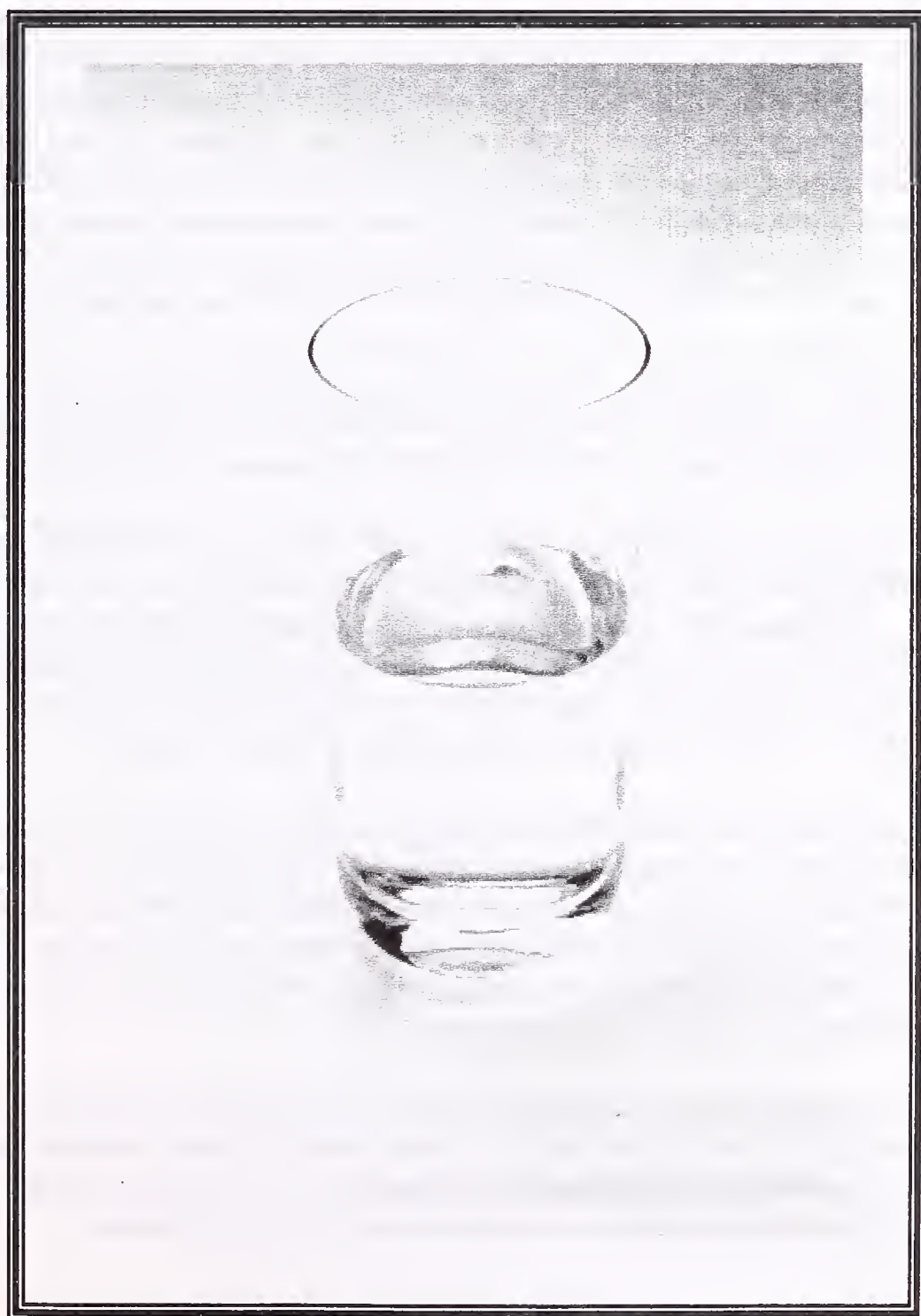
As an operator of a WWTP, one of your most important jobs is to ensure that nitrate, microbial organisms, or other contaminants in the waste stream you manage do not contaminate drinking water. You make sure the threat remains as "potential".

At the same time, the PWS operator strives to serve safe potable water to his/her customers. And there are several ways he or she goes about doing this. First and foremost is the use of clean source water at the get-go, water treatment such as disinfection prior to delivery, routine water quality monitoring, and knowing where the potential contaminant sources are. The last item on the list helps the operator know how to respond when routine monitoring indicates there is a problem.

Contaminants from handling, treating, or disposing of sewage can enter the subsurface, ground water or surface water at many points in a flow system. Common sense says that sewage wholly contained within the system is not a problem for a PWS. But we all know that it is difficult to

fully contain any liquid in a pipe no matter how it is put together or what it is made of. Some materials are better than others are but it seems that almost anything can leak. Items of concern include leaky sewer lines, unlined sewage ponds, wet wells, and perhaps other structures associated with sewage collection and treatment. It is prudent to identify these potential sources of contamination well before a chronic leak or seep becomes a problem. Simply identifying the location of the components that make up the sewage collection and treatment system will be a big help to the water system operator should a contamination event occur. To look at it from a positive view, you want to assist the PWS operator in ruling out sewage collection or treatment as a possible contaminant source.

So keep in mind that sometime over the next couple of years someone will probably ask you about your wastewater collection and treatment system because of the source water delineation and assessment program. They may ask for specific information about your sewer main layout in the form of a map or diagram. They may even ask about the location of service lines in a particular area. You may not particularly like the label “potential contaminant source” but it probably isn’t a news flash to you. At the same time, it may help your local water provider and the community you both serve.



A NEW THREAT TO DRINKING WATER:

Petroleum Hydrocarbon Permeation Of Non-Metallic Public And Private Water Lines

By Bill Hammer
DEQ Petroleum Release Section

A few years ago when the Montana Department of Environmental Quality Petroleum Release Section (DEQ) advised some professional and lay people that gasoline or diesel permeation of plastic pipe and rubber gaskets was a real threat, the idea was scoffed at. A common belief was that the water pressure within the pipe would keep gasoline and diesel contaminants out. Not so. Quite simply, permeation is the movement of contaminants from the soil environment into the wall of the pipe or gasket, and eventually into the interior of a water line. It occurs largely by a molecular diffusion process that ignores the hydrostatic pressure of the water within the pipe. Petroleum permeation of certain non-metallic pipes and gaskets is now well documented by laboratory and field studies, and is an issue of concern if petroleum-contaminated soil or groundwater is in contact with a water line system.

An interesting experiment was recently conducted by DEQ on a 30-inch section of one-inch diameter black polyethylene water service line excavated December 1999 from soil contaminated with gasoline and diesel. The section of pipe was filled with distilled water and then set aside at room temperature for approximately eight hours. In this situation, the diffusion gradient is both outward and inward from the pipe walls, unlike the in-situ situation where the gradient is from the contaminated soil into the water within the pipe. After approximately eight hours, a sample of water decanted from inside the pipe contained 527 ppb benzene when analyzed by EPA Method 524.2 Volatile Organic Compounds (VOCs). The drinking water standard for benzene is 5 ppb, yet 527 ppb may represent the benzene concentration in a slug of water entering this Montana residence every morning or afternoon. Fortunately, the DEQ had installed a filtration system on this household water system. It is also noteworthy that a neoprene gasket from the ten-inch water main near this residence contained 600,000 ppb benzene and 51,650,000 ppb gasoline range organic.

Cases of petroleum permeation at Montana petroleum release sites have involved both polyvinyl chloride (PVC) and polyethylene (PE) water mains and service connections, as well as the neoprene gaskets at their joints. Sometimes the contamination in the tap water exceeds the taste and odor threshold; however, in most instances DEQ discovered the concentrations of benzene and other contaminants are in "trace" amounts, or concentrations exceeding the water quality standards but not detectable by taste and odor. These are only discoverable by laboratory analysis.

Public water supplies are required to be tested periodically at the source for VOCs, but not at the tap. As a result, cases of permeation are usually discovered by testing required by DEQ as part of a petroleum release investigation, or by a private individual having a tap water sample analyzed. Once thought to be "secure", water within water mains and service lines is now viewed as vulnerable to contaminants in the soil and groundwater environment. The permeation phenomenon adds new meaning to the typical conceptual model of a "receptor."

Solutions to permeation problems can include re-routing the affected pipe around the contaminated area, retrofitting the impacted water system with activated charcoal filters, removing the contamination from the environment, replacing the susceptible water line with metallic pipe and petroleum-resistant nitrile or Teflon gaskets, or combinations of all of the above.

GROUND WATER AND SURFACE WATER: ONE RESOURCE

By Joe Meek

Ground water does not remain underground forever. Not only do we pump it to the surface through wells; ground water also comes to the land surface through springs and seeps into rivers, lakes, and other water bodies. In some portions of the state aquifers contribute a large portion of the water found in streams. Overall, up to half of the water flow in our streams comes from ground water. This source of surface water recharge is especially important in sustaining stream flow during dry periods. Reductions in surface water flow can have adverse impacts on the overall water flow in the watershed, recreational potential, and the availability of drinking water and water for other uses. In fact, in some parts of the US, ground water depletion has eliminated surface water flows altogether. Ground water also supports plants and animals that live in certain wetlands or along certain streambanks.

Because baseflow in streams is derived from ground water, ground water is increasingly becoming recognized as a conduit for nonpoint source contamination to surface water. Under Section 303(d) of the Clean Water Act (CWA), Montana has identified lake and stream segments whose contaminant levels exceed one or more water quality standards.

RADON RULE

By Janet Cherry

In November 1999, EPA released its draft proposal for the radon rule as part of the 1996 Safe Drinking Water Act Amendments. The intent of the rule is to regulate radon in water and air, with the emphasis being on mitigating indoor radon levels in new and existing homes through Multimedia Mitigation (MMM) program. EPA is proposing a maximum contaminant levels (MCL) in drinking water of 300 picoCuries per liter (pCi/L) and an alternative MCL (AMCL) of 4,000 pCi/L if the state or community water system implements a MMM program. The Montana Bureau of Mines and Geology sampled 283 groundwater wells in Montana in 1995 and 77 percent of these wells had radon levels in excess of 300 pCi/L, the proposed MCL for radon in drinking water. Therefore, this rule will impact many of Montana's water systems.

Breathing radon in indoor air is the primary public health risk from radon, contributing to about 20,000 lung cancer deaths each year in the United States (according to a report this year by the National Academy of Sciences (NAS)). Radon is the second leading cause of lung cancer in the United States. Based on a NAS study, EPA estimates that radon in drinking water causes about 168 cancer deaths per year: 89 percent from lung cancer caused by breathing radon released from water and 11 percent from stomach cancer caused by drinking water with radon.

The proposed standards only apply to community systems that use ground water or a mixture of ground and surface water. However, EPA may apply the standards to non-transient non-community systems and has requested comments on this part of the rule. The proposed rule will provide states the flexibility in how to limit exposure to radon by allowing them to focus their efforts on the greatest radon risks- those in indoor air- while also reducing the risks from radon in drinking water.

EPA has proposed two options for the states to address radon:

1. Community water systems will be required to meet the MCL of 300 pCi/L at the entry point. If the drinking water exceeds the 300 pCi/L, then the system must provide treatment. Small systems (less than 10,000 people) can use point-of-entry devices but larger systems must install treatment at the source. The best available technology is aeration for removal of radon in drinking water.

Or

2. Community water systems will be required to meet the AMCL of 4,000 pCi/L at the entry point if the state implements a MMM program to address the health risks from radon in indoor air. EPA is encouraging states to adopt this option because it is the most cost-effective way to achieve the greatest radon risk reduction. If the state chooses not to develop an MMM program, the community water system could choose to develop its own MMM program and then that community system would have to meet the AMCL of 4,000 pCi/L.

EPA is requiring the following to be part of the MMM program before it will approve the state's MMM program:

1. Public involvement in the development of the MMM plan.
2. Quantitative goals for reducing radon in existing and new homes.
3. Strategies for achieving these quantitative goals.
4. A plan for tracking and reporting results.

If a community system develops its own MMM program, then the state will be responsible for reviewing and approving the local MMM program.

Comments are due to EPA by February 4, 2000. The Public Water Supply Section has copies of the rule and fact sheets regarding radon in air and water. Please call Janet Cherry (444-5318) if you require additional information. The rule is also on EPA's web site (www.epa.gov/safewater/radon/radfr1.html, [radfr2.html](http://www.epa.gov/safewater/radon/radfr2.html), [radfr3.html](http://www.epa.gov/safewater/radon/radfr3.html)). EPA proposes to finalize the radon rule by August 2000.

MAJOR SOURCES OF GROUND WATER CONTAMINATION FROM THE 1996 305(B) REPORT

In the 1996 305(b) Report, 37 states reported to EPA on potential sources of ground water contamination. Those sources most frequently cited as being of greatest concern include underground storage tanks, landfills, septic systems, hazardous waste sites, surface impoundments, aboveground storage tanks, industrial facilities, spills, fertilizer and pesticide applications, pipelines and sewer lines, agricultural chemical facilities, shallow injection wells, salt water intrusion, animal feedlots, land application, mining, urban runoff, salt storage and road salting, and hazardous waste generators. In Montana, all of these except salt-water intrusion, should be considered by the PWS when completing a source water protection plan.

Source: EPA (1998a)

METHYL TERT-BUTYL ETHER (MTBE)

MTBE is a VOC that is added to gasoline to increase octane levels and to reduce carbon monoxide and ozone levels in the air. EPA identifies MTBE as a potential human carcinogen. Under the NAWQA (National Ambient Water Quality Assessment) program, MTBE was detected in 21 percent of 480 wells located in areas that use MTBE in gasoline to abate air pollution. In the rest of the nation, MTBE was detected in 2 percent of ground water samples (2,263 wells sampled). Most of the MTBE detections have been at levels below the EPA drinking-water advisory of 20 to 40 micrograms per liter (ug/L). Sources of MTBE in ground water include gasoline released from accidental spills, leaking underground storage tanks, pipelines, and watercraft emissions.

Source: USGS (1999a)

PUBLIC WATER SUPPLY ENFORCEMENT CASE MANAGEMENT

*By David Rise
Community Services Enforcement Liaison*

Have you recently received a letter from the Public Water Supply Program that used the phrases “Significant Noncompliance”, “Violation Letter”, “request for enforcement action”, or “penalties”? Did you contact whoever sent you the letter to ask them why you received that letter, why your system was not in compliance, and what was needed to bring your system into compliance? If you received one of these letters and never contacted the sender, you are about to meet the Department of Environmental Quality’s Enforcement Division.

The Department of Environmental Quality is responsible for ensuring that public water supply laws and regulations are followed. Enforcement actions against public water supply systems make up a large portion of the caseload managed by the Enforcement Division. During Fiscal Year 1999, the Enforcement Division managed 250 active enforcement cases. Sixty-eight, or 27%, of these enforcement cases involved public water supply violations. By now you are probably wondering what constitutes an enforcement case, how could your system become one and what do you do if it does.

When a public water system violates the laws or administrative rules, the Public Water Supply Program works with the offending system to bring it back into compliance with the public water supply laws. While working with violators there may come a point when the Public Water Supply Program determines that further assistance efforts are not going to bring the system back into compliance. The Public Water Supply Program then refers the violator to the Enforcement Division for formal enforcement. At this point efforts to bring the violator into compliance are transferred from the Public Water Supply Program to the Enforcement Division. When referred for formal enforcement, a violator is assigned an identifier number, an enforcement case file is created and formal enforcement begins. Formal enforcement can consist of either Administrative or Judicial Proceedings, with the possibility of monetary penalties being assessed against the violator.

On receipt by the Enforcement Division, an Enforcement Division staff member is assigned as Case Manager and a Case Attorney is assigned from the Department’s legal staff. The Case Manager consults with the Case Attorney and the Public Water Supply Program staff to develop a proposed course of action, either administrative or judicial. For administrative cases, the Case Manager also calculates penalties for the violations and drafts the Administrative Order. The Case Attorney reviews and approves the final Administrative Order, which is then signed by the Director of the Department and served to the violator. Judicial cases are enforced through the appropriate District Court for the county in which the violations occurred. In these cases the Case Attorney prepares the required documents which may include a Demand Letter, a judicial complaint, a summons or other court filings, and conducts all communications between the Department and the violator. The Case Manager maintains contact with the Case Attorney to update the case file and conduct any investigation the Case Attorney requires.

Your first official notice that your system is under formal enforcement may be when you receive an Administrative Order or Demand Letter by certified mail. What should you do then? First, you should not be surprised. Prior to submitting any violator for formal

enforcement, the Public Water Supply Program makes numerous attempts to bring the violator back into compliance. These efforts may include phone conversations, letters and field visits. During these contacts with the violator, he is advised that formal enforcement is a possibility if compliance can not be achieved. Only after these efforts fail to get the violator back into compliance is an enforcement referral done. Second, you should contact the Case Manager or Case Attorney who sent you the Administrative Order or Demand Letter, ask them questions about what you need to do to satisfy the requirements of the Administrative Order or Demand Letter and then work with them to meet those requirements.

The primary thing is to not ignore the Administrative Order or Demand Letter. Not responding to an Administrative Order means the enforcement action will be moved from the administrative to the judicial area. A complaint will be filed against the violator in District Court. Penalties for failure to comply with the Administrative Order may be requested in addition to those assessed in the Administrative Order. Failure to respond to District Court summons or complaints may result in default judgment or contempt of court judgment against the violator. In judicial cases, not responding to a Demand Letter will result in a complaint being filed in District Court, with the same possible judgments if the summons or complaints are ignored.

There is a much easier alternative. If you receive one of the letters described at the beginning of this article, **RESPOND**. Contact the person who sent it to you or the person designated in the letter. Ask what is wrong, ask what you need to do, cooperate and work with them to get your system back into compliance. If there is required water sampling to be done, do it. Provide public notice if needed. If you are not sure about a sampling or public notice procedure or requirement, ask for clarification. If you work out a schedule to meet for different compliance steps, be sure you meet the schedule. If you have any problems or questions, call back and discuss what is happening. If you work with the Public Water Supply Program in good faith, they will work with you to bring your system into compliance with the public water supply laws, without referral to the Enforcement Division.

Bringing your system into compliance may not be inexpensive, but it will definitely cost less than bringing your system into compliance, paying penalties and possibly legal fees and court costs. Getting your system into compliance and keeping it in compliance also makes good business sense.

To illustrate this, consider the following hypothetical case: A public water supplier is referred for formal enforcement for failing to conduct monthly coliform bacteria sampling, five samples were not collected, users of the water system were not notified of the missed samples and a copy of public notification for the missed samples was not submitted to the Department. The violations are being enforced by an Administrative Order with sampling and public notification requirements and a penalty the violations. Administrative Rule of Montana 17.38.606(1) provides for a minimum penalty of \$75 per violation for failure to sample for coliform bacteria and \$40 per violation for failure to provide public notification for monitoring or reporting violations. These minimum penalties may be adjusted upward to \$500 per violation according to the seriousness of the violation, the culpability of the person, the size of the system, the duration of the violation, the economic benefit of noncompliance, and the occurrence of the same or similar violation within a 12 month period. As indicated, the Department may recover an Economic Benefit, that is, the savings to the violator for not doing the required sampling.

The final minimum penalty amount is outlined below:

Failure to sample for coliform bacteria,	5 violations X \$75	= \$375
Failure to provide public notification,	5 violations X \$40	= \$200
Economic Benefit (laboratory and shipping costs plus the value of labor for sample collection),	5 missed samples X \$23	= \$115
Minimum penalty amount		= \$690.

This minimum penalty could increase to \$5115 if the maximum of \$500 per violation was assessed. The addition of other violations could also substantially increase the penalty.

As of December 30, 1999 there were 67 public water enforcement cases being managed by Enforcement Division. Penalties in these cases are generally in the thousands of dollars, but several cases had penalties in the tens of thousands dollar range. The Enforcement Division has recently received numerous enforcement requests from the Public Water Supply Program and over 30 cases are currently in the case development stage. Administrative Orders will be served on those violators as they are finalized.

Now that you have learned about enforcement case management it is time to think back. Have you received a letter like the one described at the beginning of the article? If you have, but have not been served an Administrative Order or Demand Letter, now is the time to contact the Public Water Supply Program, or you can wait for the Enforcement Division to contact you.

SOURCE WATER PROTECTION NEWS

By Joe Meek

Program Approved by EPA

U.S. EPA officially approved the Montana Source Water Protection Program in November 1999. The Montana program combines the requirements of separate sections of the SDWA, 1) wellhead protection with, 2) source water source water delineation & assessment. The program, housed within the Planning, Prevention and Assistance Division at DEQ, now moves into the implementation phase.

Columbia Falls Deserves Recognition

Gary Root at Columbia Falls has been quietly working away at developing a source water protection plan over the past couple of years. His approach is lauded by DEQ as it truly embodies the spirit in which congress intended the program to be implemented. That is, while Columbia Falls enjoyed some early assistance from DEQ, it truly is a local effort with complete ownership by the PWS. Gary has spent considerable time identifying potential contaminant sources within his source water protection area; locations of concern are shown on a large city plat map and that information is linked to specific inventory sheets. This puts him in the enviable position of having recorded data in both text and map form for potential contaminant sources around Columbia Falls. Plus, Gary's continued high level of involvement in plan development will ensure that the information will be used to protect the high quality water used by the community.

Flathead County Considers Local Water Quality District

The Flathead County Health Department has begun the process of developing a local water quality district. A local advisory committee has been formed and

initial organizational planning has started. Funding for the feasibility assessment has been derived from existing county budgets.

The next steps include an extensive effort to educate the community about the costs and benefits of a local water quality district to ensure local understanding and support. PWSs within Flathead County are encouraged to become informed about local water quality districts. Watch the community pages in the local newspaper for information about meeting dates and topics.

Pass Through Grants May be Available

Now that the Montana Source Water Protection Program has been approved by EPA, the huge task of implementation is looming on the horizon. DEQ anticipated program implementation would need to occur on several fronts in order to best utilize available resources and to get the job done within the 3 to 4 year time frame allowed by Congress. Consequently DEQ developed a mechanism to provide grants to PWSs to help get the work done. PWSs are encouraged to look into securing these grant funds to locally develop their own source water delineation and assessment report.

Generally, funding is available directly to qualified PWSs as described in the Montana Source Water Protection Program. More information can be found by calling the Source Water Protection Section at DEQ (406 444-6697) or on their website at

<http://www.deq.state.mt.us/ppa/>.

New Design Circular at DEQ

A new circular was developed by DEQ and adopted by the Montana Board of Environmental Review in mid-1999. The purpose of Department Circular PWS-6 is to ensure that potential contaminant sources have been identified in the design process well before the plan moves into the construction stage. The net result? New PWS drinking water sources shouldn't be located in such a manner that results in a high susceptibility to an identified potential contaminant source. The circular also ensures that new sources meet the delineation and assessment requirements of the SDWA. PWSs in Montana develop 25-35 new sources per year. Questions about Circular PWS-6 should be directed to the PWS section at DEQ (406 444-4400).

EPA Awards SWP/Watershed Grants

Recently, the EPA awarded a grant to the communities of Hamilton, Stevensville and Darby to develop Source Water Protection Plans concurrently within the "watershed concept". These communities have joined together with the Bitterroot Water Forum, a local watershed protection group, to form a Bitterroot Source Water Protection Advisory Council that will provide oversight to completion of the Source Water Protection Plans.

This project is an excellent example of how communities with similar hydrogeologic settings and local economies can band together to complete Source Water Protection Plans economically. In addition, this approach helps to develop management strategies that can help protect the water resources of the Bitterroot Valley as a whole. Currently, the group has hired a

consultant to complete the hydrogeologic delineation of the source waters, and to facilitate inventory completion, hazard/susceptibility assessment, and development of management plans. We commend the initiative of these communities in taking a pro-active step to complete Source Water Protection Plans for their communities in a manner that can set an example to other communities located within the same hydrologic system.

The Sage Creek Water Users Association were also recipients of an EPA grant. The Sage Creek Watershed Saline Seep Reclamation project is intended to demonstrate that reclamation of saline seep impacted areas can improve water quality. It is hoped that the project will serve as a catalyst to induce similar efforts on other saline seep impacted areas.

SDWA SECTION 1429 GROUND WATER REPORT TO CONGRESS

Summary Of Findings

Based upon the literature synthesis, GWPC/ASIWPCA/ASDWA report, and contributions from the state workgroup, the following findings by EPA are made with regard to ground water and management approaches to protect and sustain its use for the nation. The full text of the report can be viewed on the Internet at: <http://www.epa.gov>:

The State of the Resource

Ground water is a critical resource to maintain public health, the economy, and the environment. Ground water is an important freshwater resource that is critical for drinking, irrigation, industry, and maintaining lakes, streams, and wetlands. Approximately 133 million people rely upon ground water for drinking, and agriculture uses over 51 billion gallons of water daily to irrigate cropland and water livestock. Ground water feeds streams and wetlands especially during dry periods to sustain surface water flows.

From what we know, in most locations around the country, ground water is generally of good quality but continues to be threatened by point and nonpoint pollution sources, as well as over-pumping. Ground water quality is generally good (i.e., when contaminants are found, they are usually at concentrations below drinking water standards at most locations). Certain land use activities, however, including agriculture, industrial, commercial, and waste disposal, all have the potential to contribute contaminants to ground water that range from pesticides and nutrients to organic chemicals and waterborne pathogens. In some locations, these contaminants have and may continue to threaten public health. Ground water is also over-pumped in parts of the country, resulting in depletion of the resource, loss of aquifer storage capacity, and reduced recharge to surface water. Overall, ground water management may not be occurring in a way that will ensure its sustainable use well into the future.

The Status of Ground Water Management Efforts

States have made considerable progress in implementing federal and state programs aimed at specific contamination concerns. Most states have made progress in carrying-out the requirements of several federal laws aimed at remediating or preventing specific types of ground water contamination problems. Evidence of this progress can be found by examining the federal and state programs addressing various ground water concerns, such as wellhead protection, underground storage tanks, pesticides, and hazardous waste management and remediation.

Most states agree that a more comprehensive, resource-based approach holds greater potential for accomplishing effective ground water protection and many states are pursuing key aspects of such an approach. Most states believe that greater flexibility to address the highest priority ground water concerns from a more comprehensive, resource-based approach would be effective and efficient. Such an approach requires: a good technical understanding of the resource; determinations of its relative use, value and vulnerability in different locations; identification of potential threats, agreement on priorities for addressing these threats, and coordination of resources and efforts to effectively and efficiently address those priorities across the various federal, state and local agencies and programs with relevant responsibilities.

Efforts to achieve a more comprehensive approach are underway in many states, but more work needs to be done. Today, only about a dozen states have developed an EPA-approved Comprehensive State Ground Water Protection Programs (CSGWPP) that promotes the above aspects of a more strategic, resource-based approach to ground water protection. However, a 35 SDWA Section 1429 Ground Water Report to Congress recent report compiled from a survey of 26 states by the Ground Water Protection Council, the Association of State Drinking Water Administrators, and the Association of State and Interstate Pollution Control Administrators, indicates that more than half the states surveyed are undertaking efforts that are essential to a comprehensive approach to ground water protection; these states are working to differentiate their ground water resources based on use/value and vulnerability and, most of the surveyed states are identifying their ground water problems or concerns on a geographic basis. These states also reported that they are keeping the various federal and state agencies with ground water responsibilities aware of their comprehensive analysis and findings. Some states have completed, or have begun to develop, a comprehensive list of ground water protection priorities.

States have identified three primary barriers to achieving a more comprehensive approach: (1) Fragmentation of ground water programs impedes effective management. Most state and federal ground water protection programs are fragmented among and within agencies. (2) At the state level, authorities to manage the resource are often held among different state agencies with conflicting priorities and goals. (3) Communicating and coordinating between departments with ground water responsibilities can be difficult and ineffective. Additionally, because of this fragmentation, there is not a unified effort in most states to acquire available state and federal funds for comprehensive ground water protection activities.

Overall, authorities to manage the resource are not comprehensive, and the programs that have developed are structured under specific legislative authorities that, for the most part, have a narrow focus regarding ground water management.

The lack of understanding of ground water resources (e.g., the extent and condition of the resource, the physical nature of the aquifer, the behavior of contaminants within and their movement through the aquifer, the influence of surface water to ground water and vice versa).

Better information to assess the effectiveness of ground water protection efforts and to determine the impact of certain land uses on ground water is needed to set priorities for ground water protection efforts.

The states need federal support to develop coordinated, comprehensive approaches for ground water monitoring that includes priority setting.

Lack of funding targeted directly to ground water is the reason most often cited by states for limited efforts at undertaking a more comprehensive resource-based approach.

Ground water protection is often not a high priority for funding; mandated programs usually prevail for funding. In the state Survey, the lack of a targeted source of funding was cited by nearly all states as a reason why various aspects of a more comprehensive, resource-based approach to ground water protection was not underway or was limited in scope.

While States have the flexibility to use funds under several federal programs to pursue ground water protection efforts, they often choose not to or to do so in only a limited way. Additionally, because of this fragmentation, there is not a unified effort in most states to take advantage of existing available state and federal funds for comprehensive ground water protection activities.

Most states indicate that the mandates under other federal programs often preclude the state from exercising flexibility to use funds for non-mandated ground water protection priorities. This is particularly the case under the Clean Water Act, where states have the opportunity to pursue ground water activities, including more comprehensive resource assessment and planning, and to utilize state Water Quality Program Grants and Non-point Source Grants.

Funds are available for ground water activities in drinking water source areas as defined by a state in their Source Water Assessment and Protection Plans, if the states chooses to set-aside funds received from their DWSRF capitalization grant. Most states set-aside funds to delineate and assess these areas (which include ground water and surface water sources) in FY 1997 and 1998, the only years that funds could be set-aside for these purposes.

Fewer states have chosen to set-aside funds from the DWSRF for other ground water activities, although it is unclear at this time, exactly how those funds were used.

Over the last 25 years, federal, state and local governments, and private parties have spent billions of dollars to clean-up contaminated ground water. According to the National Research Council, as much as \$1 trillion may be needed to clean-up soil and ground water contamination over the next 30 years. As a result, the resources devoted to remediation vastly exceed the resources devoted to protection. The ability of states to use funds from remediation programs for more comprehensive ground water assessment and planning is very limited. Greater emphasis on prevention is needed to sustain ground water into the future.

While the funds are relatively small, most states believe that funding of SDWA Section 1429 grants would support more coordinated state planning and priority setting for ground water protection as a first step toward solving some of these problems. Furthermore, the states believe that by providing a source of targeted funding, states will be able to better address the issues of program fragmentation within the state and basic program needs, such as monitoring, resource characterization, and the development and implementation of protection programs.

New federal funds have been available to the states to address some of the key components of comprehensive ground water protection that have been missing. The Drinking Water State Revolving Fund has made money available for some ground water activities in high priority drinking water source areas through the Source Water Protection and Wellhead Protection set-asides. Funds are available for states to work on critical comprehensive ground water activities through the Clean Water Act Section 319 and the Section 106 grants. (EPA recommends that states use 15% of their Clean Water Act Section 106 grant for ground water activities.) Funds may also be available to the states through Public Water Supply Supervision grants for assisting with compliance of federal and state drinking water regulations.

Although these grants are targeted to assist in implementation of drinking water regulations, including several new federal regulations, states could potentially use these funds for comprehensive ground water protection if they can make a direct correlation to PWS compliance with drinking water regulations. It is too early to know how or if the states are using and will continue to use these funds for ground water activities. In these early years of the Drinking Water State Revolving Funds, states are making important decisions on competing priorities; the states must decide how to best use these funds to protect public health and the environment. As required by the 1996 SDWA amendments, EPA will be conducting an evaluation of the DWSRF over the next few years.

MWEA SMALL SYSTEMS AWARD NOMINATIONS

The Montana Water Environment Association (MWEA) is accepting nominations for the **MWEA Small Systems Award** to be presented at the joint annual conference of MWEA and the Montana Section of the American Water Works Association (MSAWWA) in Helena, April 20-21, 2000.

MWEA selects an outstanding small wastewater system to honor at the annual conference. The association membership actively seeks to acknowledge communities that provide exceptional wastewater treatment for their citizens. Small communities (<5000 population) often have limited resources to go the extra mile and support a wastewater facility that has sparkle and pizzaz. Around the state, there are those places where the operator(s) and the community leaders recognize the importance of and the significant public investment in their wastewater infrastructure. This award intends to find those systems and acknowledge the efforts of the community.

The nomination should include information about the treatment plant efficiency and performance, innovations in operations and maintenance, advancement of treatment technology at the system, record keeping procedures, public education and relations efforts, financial solvency, safety and operations and maintenance programs. The nomination should reflect the effective manner in which the system is administered, managed and operated and ways in which the system interacts with the community to enhance the image of the wastewater treatment system.

Previous winners are:

Ekalaka	1992
Corvallis	1993
Deer Lodge	1994
Harlem	1995
Whitehall	1996
Amsterdam-Churchill	1997
UM Biostation at Yellow Bay	1998
Forsyth	1999

Please call or send your applications to:

Bill Bahr, POBox 200901, Helena, MT 59620-0901

Phone: 406-444-5337/FAX 406-444-6836

e-mail: bbahr@state.mt.us

ATTENTION! SMALL SYSTEM OPERATORS

Bill Bahr

Over the past several years I have received numerous requests for information and advice on how to deal with a variety of problems at lagoon systems such as: weeds, erosion, dike maintenance, duckweed, land application system maintenance, etc. I am requesting information from all operators of lagoon systems (or other systems if you have similar problems and solutions) on effective methods for dealing with some or all of the following nuisances and problems:

WEEDS: Removal or control strategies rely on physical removal and/or chemical treatment to control or eliminate weeds. Different weeds require different approaches. Cattails can be controlled and eventually eliminated through chemical treatments. Physical removal is possible if the liner is not disturbed. When the cattails have taken over large sections of the lagoon, controlling the plants requires a long-term program to gradually knock out the excessive growth. One strategy is to lower the lagoon level in the fall, remove all cattail material above the ice surface when the lagoon freezes over, and let the lagoon fill so the weeds are completely submerged. This should retard the spread of the cattails and allow time to develop a control and removal strategy. For all chemical control strategies, I strongly urge system operators to apply chemicals that the local Soil Conservation Service allows for use in irrigation canals. Those chemicals are suitable for return to state waters and should be safe for operators to apply. Follow all application requirements, including licensing as an applicator. Apply in smaller doses more frequently to minimize impacts to the lagoon treatment water and its hardworking microorganisms. Consider working with the local weed control district. They may want to maintain the area around the lagoon. The operator should maintain the top and insides of the lagoon dikes to protect treatment.

Spray Irrigation Systems: The variety and number of land application systems for the beneficial use of wastewater treatment plant effluent is expanding on a daily basis. We would like to develop a comprehensive guide to assist operators in the appropriate application procedures and the necessary maintenance to keep these systems working and in compliance. Please share your best advice for others in how you operate your spray irrigation or infiltration and percolation disposal systems. The guidance should address issues such as: shut-down procedures in preparation for winter, sampling and measuring application rates, start-up maintenance and planning for spring and storage and treatment cell level monitoring.

Dike Maintenance and Erosion Control: Please share your experiences with riprap failure, loss of dikes due to erosion or washout, mowing and cutting dike vegetation, use of animals inside lagoons to control grasses, etc. and other effective maintenance techniques.

Please share your lagoon experiences so we can all benefit from the successes and failures at other systems. Doris Roberts, EPA 104(g) trainer, and I want to help in any way we can. Your help will help us help others. Contact Bill Bahr at: 406-444-5337/Fax 406-444-6836/e-mail: bbahr@state.mt.us, or write to him at: DEQ, PO Box 200901, Helena, MT 59620-0901.

DRINKING WATER PROBLEMS?

CASH FLOW PROBLEMS?



***THE MONTANA
DRINKING WATER
STATE REVOLVING FUND
LOAN PROGRAM CAN HELP***



WHAT ARE THE PROGRAM REQUIREMENTS?

- ➔ Uniform Preliminary Engineering Report (facilities plan)
- ➔ Completed uniform loan application showing ability to repay debt
- ➔ Submission of plans and specifications
- ➔ Loans secured through issuance of bonds (e.g., revenue bonds, special improvement district, rural special improvement district)
- ➔ Proper operation and maintenance
- ➔ Properly maintained financial records subject to audit

HOW CAN I APPLY OR RECEIVE MORE INFORMATION?

Information and application forms are available from:

Mark Smith
DEQ Technical and Financial Assistance Bureau
P.O. Box 200901
Helena, MT 59620-0901
Phone: 406-444-5325 or Fax: 406-444-6836

Anna Miller
DNRC Conservation and Resource Development Division
P.O. Box 201601
Helena, MT 59620-1601
Phone: 406-444-6668 or Fax: 406-444-6721



COOPERATING AGENCIES

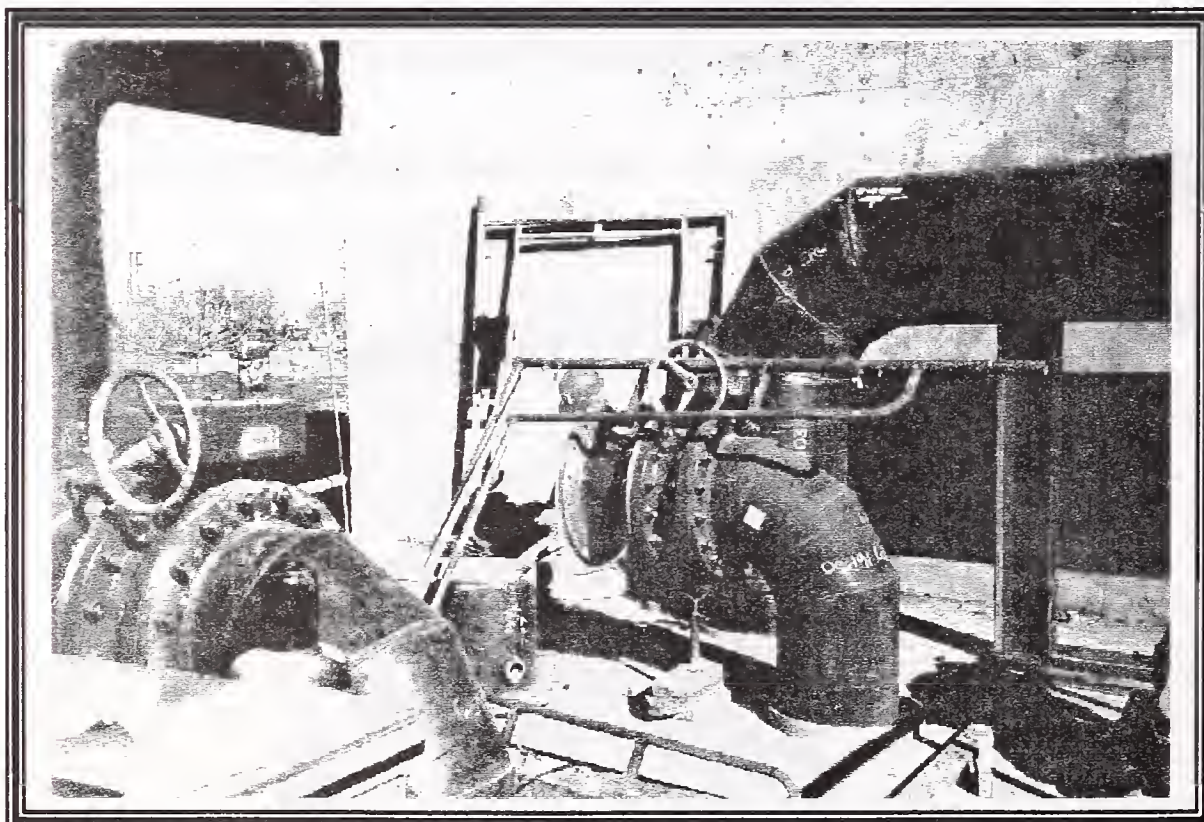
WHAT CAN BE FINANCED WITH MDWRF LOAN FUNDS?

❖ Eligible Drinking Water Projects

- ◆ Treatment plant improvements and new construction
 - ◆ Water Storage improvements and development
 - ◆ Pumping, control, and telemetry improvements
 - ◆ Source development
 - ◆ Distribution system improvements
 - ◆ Meter installations
- ### ❖ Necessary engineering or administrative expenses
- ### ❖ Engineering studies and design
- ### ❖ Project inspection

WHEN ARE MDWRF LOAN APPLICATIONS DUE?

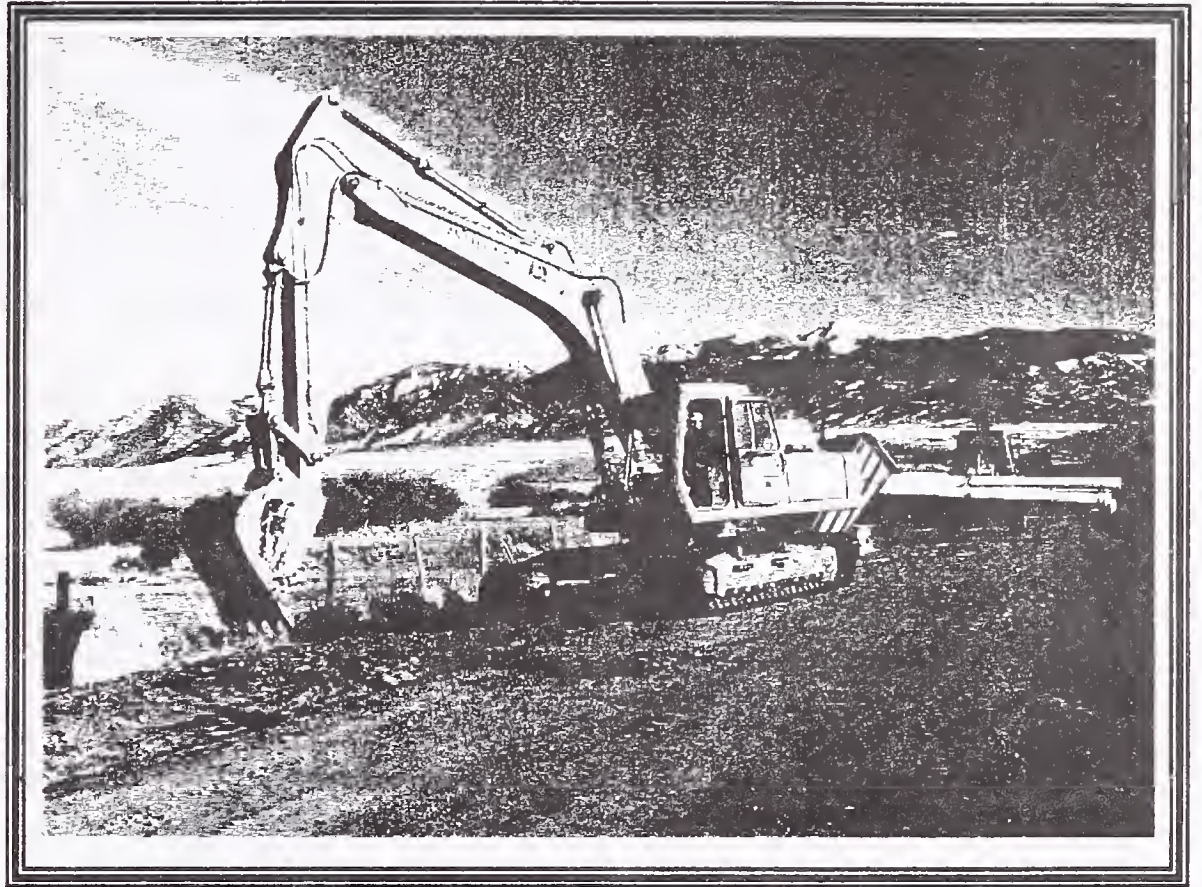
Applications are accepted throughout the year. Loan funds must be available from loan proceeds, future bond sale proceeds, or recycled MDWRF loan funds before loan funds are disbursed. Loan applications may not be processed until MDWRF funds become available.



New piping modifications next to the existing filter building, Laurel, Montana

WHO CAN APPLY FOR A MDWRF LOAN?

Any city, town, county, water district, or other local government unit authorized to own and operate a public water system water treatment works is eligible to apply. These government units must conform to state law and to the Federal Safe Drinking Water Act.



Water transmission line for Twin Bridges drinking water system

HOW CAN THE MDWRF LOAN PROGRAM HELP YOUR COMMUNITY?

- ✓ Offers affordable, long-term financing of drinking water projects
- ✓ Maintains, restores, and enhances the quality of the community's and state's waters
- ✓ Protects public health
- ✓ Offers a flexible financing package

TYPES OF ASSISTANCE:

- ❖ Direct loans
- ❖ Project refinancing
- ❖ Bond insurance
- ❖ Loan guarantees
- ❖ Interim financing



One of the first WRF projects, East Helena, Montana

THE MONTANA DRINKING WATER STATE REVOLVING FUND LOAN PROGRAM CAN HELP

The Montana Drinking Water Revolving Fund (MDWRF) Loan Program is designed to provide financial assistance in the form of low interest loans to eligible borrowers to finance community water systems and nonprofit, noncommunity water system projects. The program is administered by the Technical and Financial Assistance Bureau of the Department of Environmental Quality (DEQ) in cooperation with the Conservation and Resource Development Division of the Department of Natural Resources and Conservation (DNRC).

The program is funded jointly by federal and state money. All loan principal and interest payments and interest earnings within the fund are returned to the fund (or revolved) and subsequently loaned to provide a perpetual source of financing for future Montana projects.

The 1996 amendments to the Federal Safe Drinking Water Act as well as the Montana Drinking Water State Revolving Fund Act authorized creation of the Montana MDWRF loan program.

All loan projects must be placed on the Montana Intended Use Plan Priority List, which is updated annually. This list prioritizes projects according to environmental impacts or severity of public health hazard. Loans will be offered on a first-come basis until demand exceeds available funds.



PVC pipe for Twin Bridges water distribution system.

**Department of Environmental Quality
Permitting and Compliance Division
Community Services Bureau
PO Box 200901
Helena, MT 59620-0901**

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2,300 copies of this public document were published at an estimated cost of \$1.05 per copy, for a total cost of \$2,415.00, which includes \$2,415.00 for printing and \$.00 for distribution.